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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,940	01/25/2002	David N. Schissel	SP01-136	2302
22928	7590	05/20/2004	EXAMINER	
CORNING INCORPORATED			GRAY, JILL M	
SP-TI-3-1			ART UNIT	
CORNING, NY 14831			PAPER NUMBER	
			1774	
DATE MAILED: 05/20/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/056,940	Applicant(s) SCHISSEL ET AL.	
	Examiner Jill M. Gray	Art Unit 1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 20-78 is/are pending in the application.
- 4a) Of the above claim(s) 43-74 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 20-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I in Paper No. 2/2/04 is acknowledged. The traversal is on the ground(s) that the proposed inventions are inextricably intertwined and prosecution of the proposed groups of claims together would be most effective for the Office. This is not found persuasive because the Groups have different search areas and classifications.

The requirement is still deemed proper and is therefore made FINAL.

Response to Amendment

The rejection of claims 1-24, 43-53, and 60-78 under 35 U.S.C. 102(a) as being anticipated by International Publication WO 01/05724 A2 is withdrawn in view of applicants' arguments.

The rejection of claims 1-9, 25-51, and 54-74 under 35 U.S.C. 102(b) as being anticipated by Yamazaki et al, European Patent Publication EP 0874,012 A1 and 6,057,034 is withdrawn in view of applicants' arguments.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-18, 20-24, and 75-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over International Publication WO 01/05724 A2 (hereinafter the

publication) in view of "Synthesis and Characterization of Radiation Curable Polyurethanes Containing Pendant Acrylate Groups", Nagarajan et al, (Nagarajan).

The publication teaches a radiation curable resin composition and optical fiber coated therewith. The coating is of the type contemplated by applicants comprising a (meth)acrylate urethane compound having a molecular weight within applicants' range and a Tg of less than about -30°C , as required by claims 1, 5-7, and 21. Regarding claims 2 and 44, the publication teaches that mixtures of the urethane compound can be used. As to claims 8-9, the publication teaches that the coating includes a monomer having a functional group such as methacrylates, acrylamides and acrylate. See page 14, line 6 through page 17. Regarding claims 10-13, 18, 20, and 22, the publication teaches that the cured coatings can have a Young's modulus as low as 0.1 Mpa and an elongation-at-break of preferably at least 110%, further teaching a tensile strength that is at least 50% of the modulus. See pages 22, 23, and 28. In addition, the publication teaches a method of making said urethane compound that is essentially as claimed in claims 75-76. See page 7, line 16 through page 8, and line 4. As to claims 3-4, and 24, the publication is silent as to "m" hydroxyl functional groups and "n" hydroxyl functional groups.

Nagarajan teaches polyurethane-acrylate radiation curable materials wherein the polyurethanes contain pendant secondary hydroxyl groups along the polymer chain without gel formation, as required by claims 3-4, 19, and 24. See page 1443. The polyurethane-acrylate has a glass transition temperature within applicants' range as set forth in claims 7, 20, and 75-76, and properties such as Young's modulus, elongation at

break and molecular weight as contemplated by applicants in claims 5, 10-13, 18, and 21. Nagarajan does not teach a coated optical fiber. It would have been obvious to modify the teachings of the publication, by using as the radiation curable coating, a polyurethane-acrylate having pendent secondary hydroxyl groups as taught by Nagarajan with the reasonable expectation of obtaining an optical fiber coating that has high abrasion resistance, enhanced tensile strength of the cured composition.

As to the micro-bend attenuation set forth in claims 14-17 and 77-78, because the prior art teaches a radiation curable coating that is substantially the same as applicants, this property would necessarily be the same as applicants and is inherent.

Therefore, the combined teachings of the publication and Nagarajan would have rendered obvious the invention as claimed in the present claims.

1. Claims 1-9, and 25-42, as rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al, European Patent Publication EP 0874,012 A1 and 6,057,034 (hereinafter referred to collectively as Yamazaki) in view of "Synthesis and Characterization of Radiation Curable Polyurethanes Containing Pendant Acrylate Groups", Nagarajan et al, (Nagarajan), as applied above.

Yamazaki teaches a coating composition and optical fiber coated therewith wherein said optical fiber is coated with a composition comprising a polyurethane (meth)acrylate oligomer as required by claims 1-6, 25-27, and 33-36. See abstracts. In addition, Yamazaki teaches that a monomer having functional groups such as (meth)acrylates and acrylates can be added, as required by claims 8-9, 28-30, 34, 36,

See '034, column 7, line 39 through column 8. Yamazaki is silent as to "m" hydroxyl functional groups and "n" hydroxyl functional groups.

Nagarajan teaches polyurethane-acrylate radiation curable materials wherein the polyurethanes contain pendant secondary hydroxyl groups along the polymer chain without gel formation, as required by claims 3-4, 19, and 24. See page 1443. The polyurethane-acrylate has a glass transition temperature within applicants' range as set forth in claims 7, 20, and 75-76, and properties such as Young's modulus, elongation at break and molecular weight as contemplated by applicants in claims 5, 10-13, 18, and 21. Nagarajan does not teach a coated optical fiber. It would have been obvious to modify the teachings of Yamazaki, by using as the polyurethane (meth)acrylate oligomer, a polyurethane-acrylate having pendant secondary hydroxyl groups as taught by Nagarajan with the reasonable expectation of obtaining an optical fiber coating that has high abrasion resistance, enhanced tensile strength of the cured composition.

As to claim 32, Yamazaki teaches amounts within applicants' range. See '034, column 6, lines 4-7. As to the micro-bend attenuation as claimed in claims 7, 31, 39-42, 49, and 75-78, it is the examiner's position that since the composition of the prior art is the same as applicants then all properties are the same as well and thus are inherent.

Therefore, the combined prior art teachings of Yamakazki and Nagarajan would have rendered obvious the invention as claimed in claims 1-9, 25-36, 39-42, and 75-78.

Response to Arguments


Applicant's arguments with respect to claims 1-42 and 75-78 have been considered but are moot in view of the new ground(s) of rejection.

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill M. Gray whose telephone number is 571-272-1524. The examiner can normally be reached on M-F 10:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jill M. Gray
Examiner
Art Unit 1774

jmg